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EXAMINER

RINEHART, KENNETH

ART UNIT PAPER NUMBER

3749

DATE MAILED: 03/15/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/738,479

Applicant(s)

ALMI ET AL.

Examiner

Kenneth B Rinehart

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 26 January 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-27 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 April 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
  - 2) ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date. _____  | 6) <input type="checkbox"/> Other: _____                                    |

## **DETAILED ACTION**

### ***Response to Arguments***

Applicant's arguments with respect to claims 1-27 have been considered but are moot in view of the new ground(s) of rejection.

### ***Drawings***

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, and collecting the drying gas blown against the paper web into a return air chamber via return air ducts in communication with the return air chamber and arranged between adjacent profiling chambers so as to separate the profiling chambers, the profiling chambers and return air ducts being arranged in such a way that drying gas blown against the paper web from the profiling chambers is returned into the return air chamber through the return air ducts without the drying gas from one profiling chamber affecting the effective area of the adjacent profiling chamber, drying gas is returned into the return air chamber through return air ducts configured as elongate slots extending in the machine direction and arranged between the profiling chambers, and the impingement dryer further comprising a return air chamber in communication with return air ducts and arranged in such a way that drying gas blown against the paper web is collected into the return air chamber through the return air ducts , that the return air ducts being arranged between adjacent profiling chambers so as to separate the profiling chambers, the profiling chambers and the return air ducts being arranged in such a way that drying gas blown against the paper web from the profiling chambers is returned into the return air chamber through the return air ducts without the drying gas from

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one profiling chamber affecting the effective area of the adjacent profiling chamber must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance. Note: The examiner suggests using arrows to denote the various air flows.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 23 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claims 23, the phrase " plane like" renders the claim(s) indefinite because the claim(s) include(s) elements not actually disclosed (those encompassed by "or the like"), thereby rendering the scope of the claim(s) unascertainable. See MPEP § 2173.05(d).

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 1, 2, 4, 5, 7-9, 11, 12, 16, 17, 19-26 is rejected under 35 U.S.C. 102(b) as being anticipated by WO99/51813. WO99/51813 shows A method of blowing drying gas against a paper web with an impingement dryer comprising a plurality of profiling chambers each profiling chamber extending in a machine direction an the profiling chambers being adjacently disposed in the cross-direction of a paper machine (page 7, lines 26-29, 50, fig. 4), so as to control a cross-profile of the paper web, said method comprising blowing the drying gas blown from the profiling chambers, such that each profiling chamber blows the drying gas to its own effective area (page 7, lines 30-35); and collecting the drying gas blown against the paper web into a return air chamber via return air ducts in communication with the return air chamber and arranged between adjacent profiling chambers so as to separate the profiling chambers (page 8, lines 4-6), the profiling chambers and return air ducts being arranged in such a way that drying

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gas blown against the paper web from the profiling chambers is returned into the return air chamber through the return air ducts without the drying gas from one profiling chamber affecting the effective area of the adjacent profiling chamber (page 8, lines 4-6, page 7, lines 34-35, The slits running between the nozzle box will inherently remove the air without the drying gas from one profiling chamber affecting the effective area of the adjacent profiling chamber.), drying gas is returned into the return air chamber through return air ducts configured as elongate slots extending in the machine direction and arranged between the profiling chambers (col. 8, lines 4-6), the amount of drying gas blown from the profiling chamber is adjusted with a control unit arranged in connection with the profiling chamber (page 18, lines 6-14), the control unit comprises a damper and an actuator that moves it (page 18, lines 26-29), the temperature of the drying gas is arranged between 200 C and 600 C (page 9, lines 31-33), the blowing rate of the drying gas is arranged between 50 and 150 m/s (page 9, lines 34-35, page 10, lines 1-3), the drying gas is air (page 7, lines 30-31), a plurality of profiling chambers, each profiling chamber extending in a machine direction and the profiling chambers being adjacently disposed in the cross-direction of the paper machine (page 7, lines 26-29), for controlling the cross-profile of a paper by each profiling chamber being arranged to blow drying gas against the paper web to its own effective area (page 7, lines 30-35). and the impingement dryer further comprising a return air chamber in communication with return air ducts and arranged in such a way that drying gas blown against the paper web is collected into the return air chamber (74, fig. 2) through the return air ducts , that the return air ducts being arranged between adjacent profiling chambers so as to separate the profiling chambers (page 8, lines 4-6), the profiling chambers and the return air ducts being arranged in such a way that drying gas blown against the paper web from the

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profiling chambers is returned into the return air chamber through the return air ducts without the drying gas from one profiling chamber affecting the effective area of the adjacent profiling chamber (page 8, lines 4-6, page 7, lines 34-35, The slits running between the nozzle box will inherently remove the air without the drying gas from one profiling chamber affecting the effective area of the adjacent profiling chamber.), the return air duct is a slot between the profiling chambers (page. 8, lines 4-6), a control unit in connection with the profiling chamber in order to adjust the amount of drying gas to be supplied to the profiling chamber (page 18, lines 6-14), the control unit comprises a damper and an actuator that moves it (page 18, lines 26-29), An impingement dryer is arranged in connection with a vacuum roll in the dryer section of the paper machine (10, fig. 1), the impingement dryer is arranged below the vacuum roll (fig. 1), the impingement dryer is arranged below the vacuum roll in the basement of the paper machine (page 6, line 4), the impingement dryer is arranged in connection with a vacuum roll of a larger size than an ordinary vacuum roll of the paper machine (fig. 1, page 5, lines 1-3), wherein the impingement dryer is a plane-like impingement dryer (fig. 1).

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 3, 6, 10, 13-15, 18, 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO99/51813. WO99/51813 discloses A method of blowing drying gas against a paper web

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with an impingement dryer comprising a plurality of profiling chambers each profiling chamber extending in a machine direction and the profiling chambers being adjacently disposed in the cross-direction of a paper machine (page 7, lines 26-29, 50, fig. 4), so as to control a cross-profile of the paper web, said method comprising blowing the drying gas blown from the profiling chambers, such that each profiling chamber blows the drying gas to its own effective area (page 7, lines 30-35); and collecting the drying gas blown against the paper web into a return air chamber via return air ducts in communication with the return air chamber and arranged between adjacent profiling chambers so as to separate the profiling chambers (page 8, lines 4-6), the profiling chambers and return air ducts being arranged in such a way that drying gas blown against the paper web from the profiling chambers is returned into the return air chamber through the return air ducts without the drying gas from one profiling chamber affecting the effective area of the adjacent profiling chamber (page 8, lines 4-6, page 7, lines 34-35, The slits running between the nozzle box will inherently remove the air without the drying gas from one profiling chamber affecting the effective area of the adjacent profiling chamber.), a plurality of profiling chambers, each profiling chamber extending in a machine direction and the profiling chambers being adjacently disposed in the cross-direction of the paper machine (page 7, lines 26-29), for controlling the cross-profile of a paper by each profiling chamber being arranged to blow drying gas against the paper web to its own effective area (page 7, lines 30-35). and the impingement dryer further comprising a return air chamber in communication with return air ducts and arranged in such a way that drying gas blown against the paper web is collected into the return air chamber (74, fig. 2) through the return air ducts, that the return air ducts being arranged between adjacent profiling chambers so as to separate the profiling chambers (page 8,



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lines 4-6), the profiling chambers and the return air ducts being arranged in such a way that drying gas blown against the paper web from the profiling chambers is returned into the return air chamber through the return air ducts without the drying gas from one profiling chamber affecting the effective area of the adjacent profiling chamber (page 8, lines 4-6, page 7, lines 34-35, The slits running between the nozzle box will inherently remove the air without the drying gas from one profiling chamber affecting the effective area of the adjacent profiling chamber.). WO99/51813 discloses applicant's invention substantially as claimed with the exception of the actuator is a spindle motor, the drying gas is superheated steam, drying gas is returned into the return air chamber through return air ducts configured as a series of holes extending in the machine direction and arranged between, the return air duct is a hole between the profiling chambers, the width of the profiling chamber is 30 to 70 mm, the width of the return air duct is 5 to 10 mm. At the time the invention was made it would have been an obvious matter of design choice to a person of ordinary skill in the art to have the actuator is a spindle motor, the drying gas is superheated steam because applicant has not disclosed that type of automatic actuator or drying gas provides an advantage, is used for a particular purpose or solves a stated problem. One of ordinary skill in the art, furthermore, would have expected Applicant's invention to perform equally well with either the actuator and drying gas of WO99/51813 or the claimed actuator and gas because both actuators perform the same function providing a motive force or drying equally well. At the time the invention was made it would have been an obvious matter of design choice to a person of ordinary skill in the art to have drying gas is returned into the return air chamber through return air ducts configured as a series of holes extending in the machine direction and arranged between between the profiling chambers, the return air duct is a

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hole between the profiling chambers because applicant has not disclosed that the shape of the orifice provides an advantage, is used for a particular purpose or solves a stated problem. One of ordinary skill in the art, furthermore, would have expected Applicant's invention to perform equally well with either the shape of WO99/51813 or the claimed shape because both shapes perform the same function of a return portal equally well. At the time the invention was made it would have been an obvious matter of design choice to a person of ordinary skill in the art to the width of the profiling chamber is 30 to 70 mm, the width of the return air duct is 5 to 10 mm because applicant has not disclosed that the size of the duct or chamber provides an advantage, is used for a particular purpose or solves a stated problem. One of ordinary skill in the art, furthermore, would have expected Applicant's invention to perform equally well with either the size of WO99/51813 or the claimed size because both sizes perform the same function of a drying equally well.

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after

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the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kenneth B Rinehart whose telephone number is 571-272-4881. The examiner can normally be reached on 7:20 -4:20.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ira Lazarus can be reached on 571-272-4881. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

kbr

  
KENNETH RINEHART  
PRIMARY EXAMINER